

Recommended and minimum ages and intervals between vaccine doses*

Vaccine and dose number	Recommended age for this dose	Minimum age for this dose	Recommended interval to next dose	Minimum interval to next dose
Hepatitis B-1 [†]	Birth	Birth	1-4 months	4 weeks
Hepatitis B-2	1-2 months	4 weeks	2-17 months	8 weeks
Hepatitis B-3 [§]	6-18 months	24 weeks	–	–
DTaP-1 [†]	2 months	6 weeks	2 months	4 weeks
DTaP-2	4 months	10 weeks	2 months	4 weeks
DTaP-3	6 months	14 weeks	6-12 months	6 months ^{¶§}
DTaP-4	15-18 months	12 months	3 years	6 months [¶]
DTaP-5	4-6 years	4 years	–	–
<i>Haemophilus influenzae</i> type b (Hib)-1 ^{† **}	2 months	6 weeks	2 months	4 weeks
Hib-2	4 months	10 weeks	2 months	4 weeks
Hib-3 ^{††}	6 months	14 weeks	6-9 months	8 weeks
Hib-4	12-15 months	12 months	–	–
Inactivated poliovirus vaccine (IPV)-1 [†]	2 months	6 weeks	2 months	4 weeks
IPV-2	4 months	10 weeks	2-14 months	4 weeks
IPV-3	6-18 months	14 weeks	3-5 years	4 weeks
IPV-4	4-6 years	18 weeks	–	–
Pneumococcal conjugate vaccine (PCV)-1 ^{**}	2 months	6 weeks	2 months	4 weeks
PCV-2	4 months	10 weeks	2 months	4 weeks
PCV-3	6 months	14 weeks	6 months	8 weeks
PCV-4	12-15 months	12 months	–	–
MMR-1 ^{§§}	12-15 months ^{¶¶}	12 months	3-5 years	4 weeks
MMR-2 ^{§§}	4-6 years	13 months	–	–
Varicella ^{††}	12-18 months	12 months	4 weeks ^{††}	4 weeks ^{††}
Hepatitis A-1	12-23 months	12 months	6-18 months [¶]	6 months [¶]
Hepatitis A-2	18-41 months	18 months	–	–
Influenza Vaccine (TIV) ^{***}	6-23 months	6 months	1 month	4 weeks
Influenza Vaccine (LAIV) ^{***}	–	5 years	6-10 weeks	6 weeks
Meningococcal Conjugate Vaccine (MCV)	11-12 years	11 years	–	–
Meningococcal Polysaccharide Vaccine (MPSV)-1	–	2 years	5 years	5 years
MPSV-2	–	7 years ^{†††}	–	–
Tdap/Td ^{§§§}	≥11 years	10 years	10 years	5 years
Pneumococcal polysaccharide vaccine (PPV)-1	–	2 years	5 years	5 years
PPV-2	–	7 years ^{¶¶¶}	–	–

DTaP = Diphtheria and tetanus toxoids and acellular pertussis vaccine

MMR = Measles, mumps and rubella

TIV = Trivalent (inactivated) influenza vaccine

LAIV = Live, attenuated (intranasal) influenza vaccine

Td = Tetanus and reduced diphtheria toxoids.

Tdap = Tetanus toxoid, reduced diphtheria toxoid, and reduced acellular pertussis vaccine

- * Combination vaccines are available. Using licensed combination vaccines is preferred over separate injections of their equivalent component vaccines (Source: CDC. Combination vaccines for childhood immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP). *MMWR* 1999;48[No. RR-5];5). When administering combination vaccines, the minimum age for administration is the oldest age for any of the individual components; the minimum interval between doses is equal to the greatest interval of any of the individual components.
- † Combination vaccines containing the Hepatitis B component are available (HepB-Hib, DTaP-HepB-IPV, HepA-HepB). These vaccines should not be administered to infants less than 6 weeks old because of the other components (i.e., Hib, DTaP, IPV, and HepA).
- § Hepatitis B-3 should be administered at least 8 weeks after Hepatitis B-2 and at least 16 weeks after Hepatitis B-1, and it should not be administered before age 24 weeks.
- ¶ Calendar months.
- ‡ The minimum recommended interval between DTaP-3 and DTaP-4 is 6 months. However, DTaP-4 needn't be repeated if administered at least 4 months after DTaP-3.
- ** For Hib and PCV, children receiving the first dose of vaccine at age 7 months or older require fewer doses to complete the series (see CDC. *Haemophilus b* conjugate vaccines for prevention of *Haemophilus influenzae*, type b disease among infants and children two months of age and older: recommendations of the ACIP. *MMWR* 1991; 40[No. RR-1]:1-7, and CDC. Preventing pneumococcal disease among infants and young children: recommendations of the Advisory Committee on Immunization Practices [ACIP], *MMWR* 2000; 49[No. RR-9]:1-35).
- †† For a regimen of *only* PRP-OMP (Pedsvax-Hib®, manufactured by Merck), a dose administered at age 6 months is not required.
- §§ Combination MMR-varicella can be used if the child is younger than 13 years old. Also see footnote ††.
- ¶¶ During a measles outbreak, if cases are occurring among infants younger than 12 months of age, measles vaccination of infants aged 6 months and older can be undertaken as an outbreak control measure. However, doses administered before the first birthday should not be counted as part of the series. (Source: CDC. Measles, mumps, and rubella – vaccine use and strategies for elimination of measles, rubella, and congenital rubella syndrome and control of mumps: recommendations of the Advisory Committee on Immunization Practices [ACIP]. *MMWR* 1998;47[No. RR-8]:1-57).
- ‡‡ Children aged 12 months through 12 years require only one dose of varicella vaccine. Persons aged 13 years and older should receive two doses separated by at least 4 weeks. Children younger than 13 years old can receive a second dose of varicella vaccine during a varicella outbreak if it has been 3 months or more since the first dose.
- *** Two doses of influenza vaccine are recommended for children younger than 9 years of age who are receiving the vaccine for the first time. Children younger than 9 years who have previously received influenza vaccine, and persons 9 years of age and older, require only one dose per influenza season.
- ††† A second dose of meningococcal vaccine is recommended for people previously vaccinated with MPSV who remain at high risk of meningococcal disease. MCV is preferred when revaccinating persons aged 11-55 years, but a second dose of MPSV is acceptable. (Prevention and Control of Meningococcal Disease Recommendations of the Advisory Committee on Immunization Practices [ACIP]. *MMWR* 2005; 54: RR-07.)
- §§§ Only one dose of Tdap is recommended. Subsequent doses should be given as Td. If vaccination to prevent tetanus and/or diphtheria disease is required during the ages 7 through 10 years, Td should be given (minimum age for Td is 7 years). For one brand of Tdap the minimum age is 11 years. The preferred interval between Tdap and a previous dose of Td is 5 years. For management of a tetanus-prone wound, the minimum interval after a previous dose of any tetanus-containing vaccine is 5 years.
- ¶¶¶ A second doses of PPV is recommended for persons at highest risk for serious pneumococcal infection and those who are likely to have a rapid decline in pneumococcal antibody concentration. Revaccination 3 years after the previous dose can be considered for children at highest risk for severe pneumococcal infection who would be younger than 10 years of age at the time of revaccination. (See CDC. Prevention of pneumococcal disease: recommendations of the Advisory Committee on Immunization Practices [ACIP]. *MMWR* 1997;46[No. RR-8]:1-24).